

**Practice: 430 - Irrigation Pipeline**  
**Scenario # 1    Microirrigation Pipeline**

**Scenario Description:** **Missouri**

Description: Below ground installation of plastic pipeline installed underground between the location of the water pump and the area of irrigation to serve a micro irrigaion system. Cost represents typical situations for conventional, organic, and transitioning to organic producers. Appurtenances include: couplings, fittings, air vents, pressure relief valves, thrust blocks, risers, and inline valves, and are included as 10% of pipe material. Cost of appurtenances does not include flow meters or backflow preventers. Typical installation applies to soils with no special bedding requirements. Resource Concerns: Inefficient Use of Irrigation Water; Inefficient Energy Use.

Associated Practices: 436 - Irrigation Reservoir; 441 - Irrigation System, Microirrigation; 442 - Irrigation System, Sprinkler; 443 - Irrigation System, Surface & Subsurface; 447 - Irrigation System, Tailwater Recovery; 533 - Pumping Plant; 634 - Waste Transfer.

**Before Practice Situation:**

Pipeline needed to replace or supplement inefficient irrigation conveyance systems.

**After Practice Situation:**

Pipeline installed to convey and/or distribute water to irrigation systems or reservoirs, minimizing non-beneficial water use, reducing soil erosion, and/or reducing energy use.

**Scenario Feature Measure:**

Ft of pipe

<b>Scenario Typical Size:</b>	1500	Foot	Tot Unit Cost	\$2.65
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Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Materials	Pipe, PVC, dia. < 18", weight priced	1109	Pound	\$1.36	\$1,508.24
Equip./Install.	Trenching, Earth, 12" x 48"	1500	Foot	\$1.15	\$1,725.00
Labor	General Labor	16	Hour	\$21.56	\$344.96
Mobilization	Mobilization, medium equipment	2	Each	\$200.43	\$400.86

Total Cost:        \$3,979.06

**Payment types:**

PayType	Unit Payment	PayType	Unit Payment
EQIP-NOI	\$1.99	EQIP-HUNOI	\$2.39
EQIP-NSHTI	\$1.99	EQIP-HUNSHTI	\$2.39

**Practice: 430 - Irrigation Pipeline****Scenario # 2    Pipe System <=8" Diameter, >50 ft installation****Scenario Description:****Missouri**

Description: Below ground installation of plastic pipeline installed underground between the location of the water pump and the area of irrigation to serve an irrigaion system. Cost represents typical situations for conventional, organic, and transitioning to organic producers. Appurtenances include: couplings, fittings, air vents, pressure relief valves, thrust blocks, risers, and inline valves, and are included as 10% of pipe material. Cost of appurtenances does not include flow meters or backflow preventers. Typical installation applies to soils with no special bedding requirements. Resource Concerns: Inefficient Use of Irrigation Water; Inefficient Energy Use.

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Associated Practices: 436 - Irrigation Reservoir; 441 - Irrigation System, Microirrigation; 442 - Irrigation System, Sprinkler; 443 - Irrigation System, Surface & Subsurface; 447 - Irrigation System, Tailwater Recovery; 533 - Pumping Plant; 634 - Waste Transfer.

**Before Practice Situation:**

Pipeline needed to replace or supplement inefficient irrigation conveyance systems.

**After Practice Situation:**

Pipeline installed to convey and/or distribute water to irrigation systems or reservoirs, minimizing non-beneficial water use, reducing soil erosion, and/or reducing energy use.

**Scenario Feature Measure:**

Ft of pipe

**Scenario Typical Size:**

1500

Foot

Tot Unit Cost

\$10.97

Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Materials	Pipe, PVC, dia. < 18", weight priced	8656	Pound	\$1.36	\$11,772.16
Equip./Install.	Trenching, Earth, loam, 24" x 48"	1500	Foot	\$2.62	\$3,930.00
Labor	General Labor	16	Hour	\$21.56	\$344.96
Mobilization	Mobilization, medium equipment	2	Each	\$200.43	\$400.86

Total Cost: \$16,447.98

**Payment types:**

PayType	Unit Payment	PayType	Unit Payment
EQIP	\$7.13	EQIP-HU	\$9.87
EQIP-NOI	\$8.22	EQIP-HUNOI	\$9.87
EQIP-MRBI	\$5.48	EQIP-HUMRBI	\$8.22

**Practice: 430 - Irrigation Pipeline****Scenario # 3    Pipe System <=8" Diameter, <= 50 ft installation****Scenario Description:****Missouri**

Description: Below ground installation of plastic pipeline installed underground between the location of the water pump and the area of irrigation to serve an irrigaion system. Cost represents typical situations for conventional, organic, and transitioning to organic producers. Appurtenances include: couplings, fittings, air vents, pressure relief valves, thrust blocks, risers, and inline valves, and are included as 10% of pipe material. Cost of appurtenances does not include flow meters or backflow preventers. Typical installation applies to soils with no special bedding requirements. Resource Concerns: Inefficient Use of Irrigation Water; Inefficient Energy Use.

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Associated Practices: 436 - Irrigation Reservoir; 441 - Irrigation System, Microirrigation; 442 - Irrigation System, Sprinkler; 443 - Irrigation System, Surface & Subsurface; 447 - Irrigation System, Tailwater Recovery; 533 - Pumping Plant; 634 - Waste Transfer.

**Before Practice Situation:**

Pipeline needed to replace or supplement inefficient irrigation conveyance systems.

**After Practice Situation:**

Pipeline installed to convey and/or distribute water to irrigation systems or reservoirs, minimizing non-beneficial water use, reducing soil erosion, and/or reducing energy use.

**Scenario Feature Measure:**

Ft of pipe

**Scenario Typical Size:**

50

Foot

Tot Unit Cost

\$21.92

Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Materials	Pipe, PVC, dia. < 18", weight priced	288	Pound	\$1.36	\$391.68
Equip./Install.	Trenching, Earth, loam, 24" x 48"	50	Foot	\$2.62	\$131.00
Labor	General Labor	8	Hour	\$21.56	\$172.48
Mobilization	Mobilization, medium equipment	2	Each	\$200.43	\$400.86

Total Cost: \$1,096.02

**Payment types:**

PayType	Unit Payment	PayType	Unit Payment
EQIP	\$14.25	EQIP-HU	\$19.73
EQIP-NOI	\$16.44	EQIP-HUNOI	\$19.73
EQIP-MRBI	\$10.96	EQIP-HUMRBI	\$16.44

**Practice: 430 - Irrigation Pipeline****Scenario # 4    Pipe System 10-12" Diameter, >50 ft Installation****Scenario Description:****Missouri**

Description: Below ground installation of plastic pipeline installed underground between the location of the water pump and the area of irrigation to serve an irrigaion system. Cost represents typical situations for conventional, organic, and transitioning to organic producers. Appurtenances include: couplings, fittings, air vents, pressure relief valves, thrust blocks, risers, and inline valves, and are included as %10 of pipe material. Cost of appurtenances does not include flow meters or backflow preventers. Typical installation applies to soils with no special bedding requirements. Resource Concerns: Inefficient Use of Irrigation Water; Inefficient Energy Use.

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Associated Practices: 436 - Irrigation Reservoir; 441 - Irrigation System, Microirrigation; 442 - Irrigation System, Sprinkler; 443 - Irrigation System, Surface & Subsurface; 447 - Irrigation System, Tailwater Recovery; 533 - Pumping Plant; 634 - Waste Transfer.

**Before Practice Situation:**

Pipeline needed to replace or supplement inefficient irrigation conveyance systems.

**After Practice Situation:**

Pipeline installed to convey and/or distribute water to irrigation systems or reservoirs, minimizing non-beneficial water use, reducing soil erosion, and/or reducing energy use.

**Scenario Feature Measure:**

Ft of pipe

**Scenario Typical Size:**

1500

Foot

Tot Unit Cost

\$14.30

Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Materials	Pipe, PVC, dia. < 18", weight priced	12271	Pound	\$1.36	\$16,688.56
Equip./Install.	Trenching, Earth, loam, 24" x 48"	1500	Foot	\$2.62	\$3,930.00
Labor	General Labor	20	Hour	\$21.56	\$431.20
Mobilization	Mobilization, medium equipment	2	Each	\$200.43	\$400.86

Total Cost: \$21,450.62

**Payment types:**

PayType	Unit Payment	PayType	Unit Payment
EQIP	\$9.30	EQIP-HU	\$12.87
EQIP-NOI	\$10.73	EQIP-HUNOI	\$12.87
EQIP-MRBI	\$7.15	EQIP-HUMRBI	\$10.73

**Practice: 430 - Irrigation Pipeline****Scenario # 5    Pipe System 10-12" Diameter; <=50ft Installation****Scenario Description:****Missouri**

Description: Below ground installation of plastic pipeline installed underground between the location of the water pump and the area of irrigation to serve an irrigaion system. Cost represents typical situations for conventional, organic, and transitioning to organic producers. Appurtenances include: couplings, fittings, air vents, pressure relief valves, thrust blocks, risers, and inline valves, and are included as 10% of pipe material. Cost of appurtenances does not include flow meters or backflow preventers. Typical installation applies to soils with no special bedding requirements. Resource Concerns: Inefficient Use of Irrigation Water; Inefficient Energy Use.

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Associated Practices: 436 - Irrigation Reservoir; 441 - Irrigation System, Microirrigation; 442 - Irrigation System, Sprinkler; 443 - Irrigation System, Surface & Subsurface; 447 - Irrigation System, Tailwater Recovery; 533 - Pumping Plant; 634 - Waste Transfer.

**Before Practice Situation:**

Pipeline needed to replace or supplement inefficient irrigation conveyance systems.

**After Practice Situation:**

Pipeline installed to convey and/or distribute water to irrigation systems or reservoirs, minimizing non-beneficial water use, reducing soil erosion, and/or reducing energy use.

**Scenario Feature Measure:**

Ft of pipe

**Scenario Typical Size:**

50

Foot

Tot Unit Cost

\$26.07

Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Materials	Pipe, PVC, dia. < 18", weight priced	409	Pound	\$1.36	\$556.24
Equip./Install.	Trenching, Earth, loam, 24" x 48"	50	Foot	\$2.62	\$131.00
Labor	General Labor	10	Hour	\$21.56	\$215.60
Mobilization	Mobilization, medium equipment	2	Each	\$200.43	\$400.86

Total Cost: \$1,303.70

**Payment types:**

PayType	Unit Payment	PayType	Unit Payment
EQIP	\$16.95	EQIP-HU	\$23.47
EQIP-NOI	\$19.56	EQIP-HUNOI	\$23.47
EQIP-MRBI	\$13.04	EQIP-HUMRBI	\$19.56

**Practice: 430 - Irrigation Pipeline****Scenario # 6    Pipe System >=15", >50 ft Installation****Scenario Description:****Missouri**

Description: Below ground installation of plastic pipeline installed underground between the location of the water pump and the area of irrigation to serve an irrigaion system. Cost represents typical situations for conventional, organic, and transitioning to organic producers. Appurtenances include: couplings, fittings, air vents, pressure relief valves, thrust blocks, risers, and inline valves, and are included as 10% of pipe material. Cost of appurtenances does not include flow meters or backflow preventers. Typical installation applies to soils with no special bedding requirements. Resource Concerns: Inefficient Use of Irrigation Water; Inefficient Energy Use.

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Associated Practices: 436 - Irrigation Reservoir; 441 - Irrigation System, Microirrigation; 442 - Irrigation System, Sprinkler; 443 - Irrigation System, Surface & Subsurface; 447 - Irrigation System, Tailwater Recovery; 533 - Pumping Plant; 634 - Waste Transfer.

**Before Practice Situation:**

Pipeline needed to replace or supplement inefficient irrigation conveyance systems.

**After Practice Situation:**

Pipeline installed to convey and/or distribute water to irrigation systems or reservoirs, minimizing non-beneficial water use, reducing soil erosion, and/or reducing energy use.

**Scenario Feature Measure:**

Ft of pipe

**Scenario Typical Size:**

1500

Foot

Tot Unit Cost

\$21.54

Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Materials	Pipe, PVC, dia. < 18", weight priced	19816	Pound	\$1.36	\$26,949.76
Equip./Install.	Trenching, Earth, loam, 24" x 48"	1500	Foot	\$2.62	\$3,930.00
Labor	General Labor	48	Hour	\$21.56	\$1,034.88
Mobilization	Mobilization, medium equipment	2	Each	\$200.43	\$400.86

Total Cost: \$32,315.50

**Payment types:**

PayType	Unit Payment	PayType	Unit Payment
EQIP	\$14.00	EQIP-HU	\$19.39
EQIP-NOI	\$16.16	EQIP-HUNOI	\$19.39
EQIP-MRBI	\$10.77	EQIP-HUMRBI	\$16.16

**Practice: 430 - Irrigation Pipeline**  
**Scenario # 7    Pipe System >=15", <=50ft Installation**

Scenario Description:

Missouri

Description: Below ground installation of plastic pipeline installed underground between the location of the water pump and the area of irrigation to serve an irrigaion system. Cost represents typical situations for conventional, organic, and transitioning to organic producers. Appurtenances include: couplings, fittings, air vents, pressure relief valves, thrust blocks, risers, and inline valves, and are included as 10% of pipe material. Cost of appurtenances does not include flow meters or backflow preventers. Typical installation applies to soils with no special bedding requirements. Resource Concerns: Inefficient Use of Irrigation Water; Inefficient Energy Use.

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Associated Practices: 436 - Irrigation Reservoir; 441 - Irrigation System, Microirrigation; 442 - Irrigation System, Sprinkler; 443 - Irrigation System, Surface & Subsurface; 447 - Irrigation System, Tailwater Recovery; 533 - Pumping Plant; 634 - Waste Transfer.

**Before Practice Situation:**

Pipeline needed to replace or supplement inefficient irrigation conveyance systems.

**After Practice Situation:**

Pipeline installed to convey and/or distribute water to irrigation systems or reservoirs, minimizing non-beneficial water use, reducing soil erosion, and/or reducing energy use.

**Scenario Feature Measure:**

Ft of pipe

Scenario Typical Size:	50	Foot	Tot Unit Cost	\$38.94
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Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Materials	Pipe, PVC, dia. < 18", weight priced	660	Pound	\$1.36	\$897.60
Equip./Install.	Trenching, Earth, loam, 24" x 48"	50	Foot	\$2.62	\$131.00
Labor	General Labor	24	Hour	\$21.56	\$517.44
Mobilization	Mobilization, medium equipment	2	Each	\$200.43	\$400.86

Total Cost:        \$1,946.90

**Payment types:**

PayType	Unit Payment	PayType	Unit Payment
EQIP	\$25.31	EQIP-HU	\$35.04
EQIP-NOI	\$29.20	EQIP-HUNOI	\$35.04
EQIP-MRBI	\$19.47	EQIP-HUMRBI	\$29.20